

Amendments to the Claims

Please make the following amendments to the Claims:

1. (Currently Amended) An apparatus for delivering digital services, the apparatus comprising:

a broadcast data source configured to provide digital broadcast data;
a user data source configured to provide digital user requested data;
a transmitter configured to transmit the digital broadcast data over an over-the-air data delivery system comprising at least a portion of an existing over-the-air analog broadcast system, the digital broadcast data being transmitted on a broadcast channel within a spectrum historically dedicated to analog broadcast signals; and the transmitter further configured to transmit the digital user requested data over the over-the-air data delivery system, the digital user requested data being transmitted on a user channel within the spectrum historically dedicated to analog broadcast signals; and

the transmitter further configured to transmit one or more of the digital broadcast data and the digital user requested data on a first plurality of channels and a second plurality of channels, the first plurality of channels directionally transmitted in a first transmission pattern, the second plurality of channels directionally transmitted in a second transmission pattern, the second plurality of channels different at least in part from the first plurality of channels.

2. (Original) The apparatus of claim 1, wherein the spectrum historically dedicated to analog broadcast signals is selected from the group consisting of a FM spectrum, an AM spectrum, a VHF spectrum, and a UHF spectrum.

3. (Original) The apparatus of claim 1, wherein the broadcast data source is selected from the group consisting of a broadcast network, a digital content server, a telephone network, and an internet.

4. (Original) The apparatus of claim 1, further comprising a digital content server configured to store digital content.
5. (Previously Presented) The apparatus of claim 4, wherein the digital content server is further configured to encrypt digital content.
6. (Previously Presented) The apparatus of claim 4, wherein the digital content server fulfills digital content requests from a plurality of users, the digital content requests comprising communications selected from the group consisting of back-channel communications, telephone communications, email communications, and web page communications.
7. (Original) The apparatus of claim 1, further comprising at least one back-channel receiver configured to conduct back-channel communications.
8. (Original) The apparatus of claim 7, wherein the at least one back-channel receiver is selected from the group consisting of a telephone modem, a cellular phone receiver, a digital subscriber line interface, and a wireless receiver configured to receive a user back-channel within the spectrum historically dedicated to analog broadcast signals.
9. (Original) The apparatus of claim 7, wherein the back-channel communications include digital content requests.
10. (Original) The apparatus of claim 7, wherein the back-channel receiver is further configured to directionally receive data.
11. (Previously Presented) The apparatus of claim 1, wherein the digital broadcast data comprises digital content selected from the group consisting of an audio selection, a movie, a television program, a video game, a news program, a sporting event, an email message, and a web page.

12. (Previously Presented) The apparatus of claim 1, wherein the digital user requested data comprises digital content selected from the group consisting of an audio selection, a movie, a television program, a video game, a news program, a sporting event, an email message, and a web page.

13. (Currently Amended) An apparatus for receiving digital services, the apparatus comprising:

an antenna configured to receive a digitally encoded transmission signal within a spectrum historically dedicated to analog broadcast signals, the digitally encoded transmission signal comprising a plurality of channels including at least one broadcast channel and at least one user-requested channel and transmitted by a transmitter; and

wherein the transmitter is configured to transmit one or more of digital broadcast data and digital user requested data on a first plurality of channels and a second plurality of channels, the first plurality of channels directionally transmitted in a first transmission pattern, the second plurality of channels directionally transmitted in a second transmission pattern, the second plurality of channels different at least in part from the first plurality of channels; and

a receiver configured to convert a selected channel within the digitally encoded transmission signal to a digital data stream;

wherein the digitally encoded transmission signal is transmitted via an over-the-air data delivery system comprising at least a portion of an existing over-the-air analog broadcast system.

14. (Previously Presented) The apparatus of claim 13, further comprising a back-channel transmitter configured to conduct back-channel communications via the over-the-air data delivery system.

15. (Original) The apparatus of claim 14, wherein the back-channel transmitter is selected from the group consisting of a telephone modem, a cellular phone transmitter, a digital subscriber line interface, and a wireless transmitter configured to transmit within the spectrum historically dedicated to analog broadcast signals.

16. (Original) The apparatus of claim 14, wherein the back-channel communications comprise digitally encoding a back-channel transmission signal within the spectrum historically dedicated to analog broadcast signals.

17. (Original) The apparatus of claim 14, wherein the antenna is further configured to directionally transmit the back-channel transmission signal.

18. (Original) The apparatus of claim 13, wherein the antenna is further configured to directionally receive the digitally encoded transmission signal.

19. (Original) The apparatus of claim 13, wherein the digitally encoded transmission signal comprises at least one movie channel, at least one television program, and at least one telephone channel.

20. (Original) The apparatus of claim 13, wherein the spectrum historically dedicated to analog broadcast signals is selected from the group consisting of a FM spectrum, an AM spectrum, a VHF spectrum, and a UHF spectrum.

21. (Original) The apparatus of claim 13, further comprising a program selector configured to enable selection of digital content.

22. (Original) The apparatus of claim 13, further comprising a telephone interface configured to provide telephone services via the at least one user-requested channel.

23. (Original) The apparatus of claim 13, further comprising a decryption module configured to decrypt encrypted digital content.

24. (Original) The apparatus of claim 13, wherein the receiver is further configured to receive digital content selected from the group consisting of an audio selection, a movie, a television program, a video game, a news program, a sporting event, an email message, and a web page.

25. (Currently Amended) A method for delivering digital services, the method comprising:

securing a license to broadcast within a spectrum historically dedicated to an analog broadcast signal;

transmitting digital broadcast data via an over-the-air data delivery system comprising at least a portion of an existing over-the-air analog broadcast system, the digital broadcast data being transmitted on at least one broadcast channel within the historically dedicated spectrum; and

transmitting digital user data via the over-the-air data delivery system on at least one user channel within the historically dedicated spectrum;

wherein transmitting further comprises transmitting one or more of the digital broadcast data and the digital user requested data with a first digital data stream on a first channel and a second digital data stream on the first channel, the first digital data stream directionally transmitted in a first transmission pattern, the second digital data stream directionally transmitted in a second transmission pattern, the second

digital data stream comprising one or more of digital content and services
substantially different from one or more of digital content and services of the first
digital data stream.

26. (Original) The method of claim 25, wherein the license to broadcast is selected from the group consisting of a FM license, an AM license, a VHF license, and a UHF license.

27. (Original) The method of claim 25, wherein transmitting digital data is conducted in a manner that precludes transmission of the analog broadcast signal.

28. (Previously Presented) The method of claim 25, further comprising receiving data via the over-the-air data delivery system on at least one user back-channel.

29. (Original) The method of claim 27, wherein receiving data on the at least one user back-channel comprises communications selected from the group consisting telephone modem communications, cellular phone communications, digital subscriber line communications, internet communications, and wireless communications within the spectrum historically dedicated to analog broadcast signals.

30. (Original) The method of claim 27, wherein receiving data on at least one user back-channel comprises directionally receiving a back-channel transmission signal from a user.

31. (Previously Presented) The method of claim 25, further comprising receiving a request for digital content on a user back-channel.

32. (Previously Presented) The method of claim 31, wherein receiving a request for digital content comprises an action selected from the group consisting of communicating on a back-channel, receiving a telephone call, receiving internet communications, and hosting a web page.

33. (Original) The method of claim 25, further comprising providing an encryption key configured to enable reception of encrypted digital content.

34. (Previously Presented) The method of claim 25, wherein providing the encryption key comprises an action selected from the group consisting of communicating on a user back-channel, receiving a telephone call, receiving internet communications, and hosting a web page.

35. (Original) The method of claim 25, wherein the broadcast data comprises digital content selected from the group consisting of an audio selection, a movie, a television program, a video game, a news program, a sporting event, an email message, and a web page.

36. (Original) The method of claim 25, wherein the user data comprises digital content selected from the group consisting of an audio selection, a movie, a television program, a video game, a news program, a sporting event, an email message, and a web page.

37. (Original) The method of claim 25, further comprising receiving a program selection from a user.

38. (Original) The method of claim 25, further receiving a program series selection from a user.

39. (Original) The method of claim 25, wherein the broadcast data is broadcast at a published time.

40. (Previously Presented) The method of the claim 39, wherein the published time is published in a newspaper.

41. (Previously Presented) The method of claim 39, wherein the published time is published via a programming selection channel.

42. (Original) The method of claim 25, wherein the broadcast data comprises a digital edition of a newspaper.

43. (Previously Presented) The method of claim 42, wherein the digital edition of the newspaper has format substantially equal to a printed edition of the newspaper.

44. (Original) The method of claim 25, further comprising installing a digital services delivery component selected from the group consisting of a transmitter, a content server, a broadcast network interface, a back-channel receiver, an internet server, and a phone switch.

45. (Currently Amended) A method for receiving digital services, the method comprising:

receiving a digitally encoded transmission signal within a spectrum historically dedicated to analog broadcast signals the digitally encoded transmission signal transmitted by a transmitter; and
wherein the transmitter is configured to transmit one or more of digital broadcast data and digital user requested data with a first digital data stream on a first channel and a second digital data stream on the first channel, the first digital data stream directionally transmitted in a first transmission pattern, the second digital data stream directionally transmitted in a second transmission pattern, the second digital data stream comprising one or more of digital content and services substantially different from one or more of digital content and services of the first digital data stream; and

converting the digitally encoded transmission signal to a digital data stream;

wherein the digitally encoded transmission signal is transmitted via an over-the-air data delivery system comprising at least a portion of an existing over-the-air analog broadcast system.

46. (Previously Presented) The method of claim 45, further comprising transmitting a digitally encoded back-channel transmission signal via the over-the-air data delivery system within a spectrum historically dedicated to analog broadcast signals.

47. (Original) The method of claim 46, wherein the digitally encoded back-channel transmission is directionally transmitted.

48. (Original) The method of claim 45, wherein the digitally encoded transmission signal is directionally received.

49. (Original) The method of claim 45, wherein the digitally encoded transmission signal comprises at least one movie channel, at least one television program, and at least one telephone channel.

50. (Previously Presented) The method of claim 45, wherein the digitally encoded transmission signal comprises a digital edition of a newspaper.

51. (Previously Presented) The method of claim 50, wherein a format of the digital edition of a newspaper is substantially equal to a printed edition format.

52. (Original) The method of claim 45, wherein the spectrum historically dedicated to analog broadcast signals is selected from the group consisting of a FM spectrum, an AM spectrum, a VHF spectrum, and a UHF spectrum.

53. (Original) The method of claim 45, further comprising transmitting data on a user back-channel.

54. (Original) The method of claim 53, wherein transmitting data on a user back-channel comprises communications selected from the group consisting telephone modem communications, cellular network communications, internet communications, and wireless communications within the spectrum historically dedicated to analog broadcast signals.

55. (Original) The method of claim 53, wherein transmitting data on a user back-channel comprises directionally transmitting data.

56. (Original) The method of claim 45, further comprising requesting digital content on a user channel.

57. (Original) The method of claim 56, wherein requesting digital content comprises an action selected from the group consisting of communicating on a back-channel, placing a telephone call, accessing the internet, and visiting a web page.

58. (Original) The method of claim 45, further comprising purchasing an encryption key configured to enable reception of encrypted digital content.

59. (Original) The method of claim 58, wherein purchasing the encryption key comprises an action selected from the group consisting of communicating on a back-channel, placing a telephone call, accessing the internet, and visiting a web page.

60. (Original) The method of claim 45, wherein the digital data stream comprises digital content selected from the group consisting of an audio selection, a movie, a television program, a video game, a news program, a sporting event, an email message, and a web page.

61. (Original) The method of claim 45, further comprising selecting a program.

62. (Previously Presented) The method of claim 45, further comprising selecting a program series.

63. (Original) The method of claim 45, wherein digital data stream comprises a digital edition of a newspaper.

64. (Previously Presented) The method of claim 63, wherein the digital edition of the newspaper has a format substantially equal to a printed edition of the newspaper.

65. (Currently Amended) A method for providing digital services, the method comprising:

securing a license to broadcast within a spectrum historically dedicated to an analog broadcast signal;

transmitting a first digital data stream via an over-the-air data delivery system comprising at least a portion of an existing over-the-air analog broadcast system, the first digital data stream being directionally transmitted on a first channel in a first transmission-direction pattern; and

concurrently transmitting a second digital data stream via the over-the-air data delivery system on the first channel in a second transmission direction pattern, the second digital data stream transmitted directionally and comprising one or more of digital content and services substantially different from one or more of digital content and services of the first digital data stream.

66. (Original) The method of claim 65, further comprising providing wireless telephone service.

67. (Currently Amended) A system for delivering digital services, the system comprising:

a transmitter configured to transmit digital broadcast data over an over-the-air data delivery system comprising at least a portion of an existing over-the-air analog broadcast system, the digital broadcast data being transmitted on a plurality of broadcast channels within a spectrum historically dedicated to analog broadcast signals and concurrently transmit digital user requested data over the over-the-air delivery system on a plurality of user channels within the spectrum historically dedicated to analog broadcast signals; ~~and~~

the transmitter further configured to transmit the digital user requested data on a first plurality of user channels and a second plurality of user channels, the first plurality of user channels directionally transmitted in a first transmission pattern, the second plurality of user channels directionally transmitted in a second transmission pattern, the second plurality of user channels different at least in part from the first plurality of user channels; and

a receiver configured to convert a selected broadcast channel of the plurality of broadcast channels to a digital data stream.

68. (Original) The system of claim 67, wherein the spectrum historically dedicated to analog broadcast signals is selected from the group consisting of a FM spectrum, an AM spectrum, a VHF spectrum, and a UHF spectrum.

69. (Original) The system of claim 67, wherein the broadcast data is received from a data source selected from the group consisting of a broadcast network, a digital content server, a telephone network, and an internet.

70. (Original) The system of claim 67, further comprising a back-channel receiver configured to conduct back-channel communications.

71. (Original) The system of claim 70, wherein the back-channel receiver is selected from the group consisting of a telephone modem, a cellular phone receiver, a digital subscriber line interface, and a wireless receiver configured to a user back-channel within the spectrum historically dedicated to analog broadcast signals.

72. (Original) The system of claim 70, wherein the back-channel communications include digital content requests.

73. (Original) The system of claim 70, wherein the back-channel receiver is further configured to directionally receive data.

74. (Original) The system of claim 67, wherein the broadcast data comprises digital content selected from the group consisting of an audio selection, a movie, a television program, a video game, a news program, a sporting event, an email message, and a web page.

75. (Original) The system of claim 67, wherein the user requested data comprises digital content selected from the group consisting of an audio selection, a movie, a television program, a video game, a news program, a sporting event, an email message, and a web page.

76. (Original) The system of claim 67, further comprising a digital content server configured to fulfill digital content requests from a plurality of users.

77. (Previously Presented) The system of claim 76, wherein the digital content server is further configured to encrypt digital content.

78. (Original) The system of claim 67, further comprising a back-channel transmitter configured to conduct back-channel communications.

79. (Original) The system of claim 78, wherein the back-channel transmitter is selected from the group consisting of a telephone modem, a cellular phone transmitter, a digital subscriber line interface, and a wireless transmitter configured to transmit within the spectrum historically dedicated to analog broadcast signals.

80. (Original) The system of claim 78, wherein the back-channel communications comprise digitally encoding a back-channel transmission signal within the spectrum historically dedicated to analog broadcast signals.

81. (Previously Presented) The apparatus of claim 67, wherein the receiver is further configured to receive digital content selected from the group consisting of an audio selection, a movie, a television program, a video game, a news program, a sporting event, an email message, and a web page.

82. (Currently Amended) An apparatus for delivery telephone service to a geographic region, the apparatus comprising:

a transmitter configured to transmit telephony data over an over-the-air data delivery system comprising at least a portion of an existing over-the-air analog broadcast system, the telephony data being transmitted on a plurality of user channels within a spectrum historically dedicated to analog broadcast signals; and

the transmitter further configured to transmit telephony data with a first telephony data stream on a first channel and a second telephony data stream on the first channel, the first telephony data stream directionally transmitted in a first transmission pattern, the second telephony data stream directionally transmitted in a second

transmission pattern, the second telephony data stream comprising telephony data substantially different from telephony data of the first telephony data stream
a back-channel receiver configured to receive telephony data over the over-the-air data delivery system on a plurality of back-channels.

83. (Original) The apparatus of claim 82, wherein the spectrum historically dedicated to analog broadcast signals is selected from the group consisting of a FM spectrum, an AM spectrum, a VHF spectrum, and a UHF spectrum.

84. (Original) The apparatus of claim 82, wherein the back-channels are transmitted within the spectrum historically dedicated to analog broadcast signals.